#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019263 Address: 333 Burma Road **Date Inspected:** 19-Dec-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Oiu Wen. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG components.

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

This QA Inspector observed the following work in progress:

OBG Seg 13AW:

Repair welding of weld joint no: SEG3013H-020 [Floor Beam (FB) to FB, complete joint penetration (CJP) weld at panel point (PP) 119]. The welder is identified as 066163 and was observed welding in the 1G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-1G(1F)-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 19214 Rev-0.

Repair welding of weld joint no: SEG3013H-020 SEG3013P-339 [FB to Sub-Assembly (SA) 3167A, CJP weld; at PP119]. The welder is identified as 045240 and was observed welding in the 3G position. Welding process was identified as Flux Cored Arc Welding (FCAW). ZPMC QC was identified as Sun Tian Ling. The welding

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variables recorded by this QC appeared to comply with WPS: 345-FCAW-3G(3F)-Repair-ESAB. Repair welding was done as per WRR: B-WR 19193 Rev-0.

The SMAW process on weld joint no: SEG3013AA-001 [Side panel (SP) to Edge Plate (EP) 3020A, CJP weld; at PP117.5 to PP118]. The welders are identified as 047864 and 066361 and were observed welding in the 4G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-TC-U4b-FCM-1.

#### OBG Seg 14W:

The FCAW process on weld joint no: SEG3020D-035 [FB3343 to Longitudinal Diaphragm (LD) 3051, CJP weld; at PP127.5]. The welder is identified as 045175 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

ZPMC personnel performing heat straightening on weld jt no: FB3343-236. Heat straightening was done as per Heat Straightening Report (HSR) no: 9941 Dt: 12/10/10. ZPMC QC was identified as Zhu Lin. See attached photo for details.

### OBG Seg 13CW:

The FCAW process on weld joint no: SEG3015B-101 (FB3238A to FB3233A, CJP weld; at PP124.5). The welder is identified as 067876 and was observed welding in the 2G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3015F-222 [FB3236B to Vertical Plate (VP) 3015A, CJP weld; at PP123.5). The welder is identified as 066734 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3015H-212 (FB3236A to VP3015A, CJP weld; at PP123). The welder is identified as 066439 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

### OBG Seg 13BW:

The FCAW process on weld joint no: SEG3014H-212 (FB3208A to VP3015A, CJP weld; at PP121). The welder is identified as 045276 and was observed welding in the 3G position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

Inspected By:	Wadkar,Sailesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer